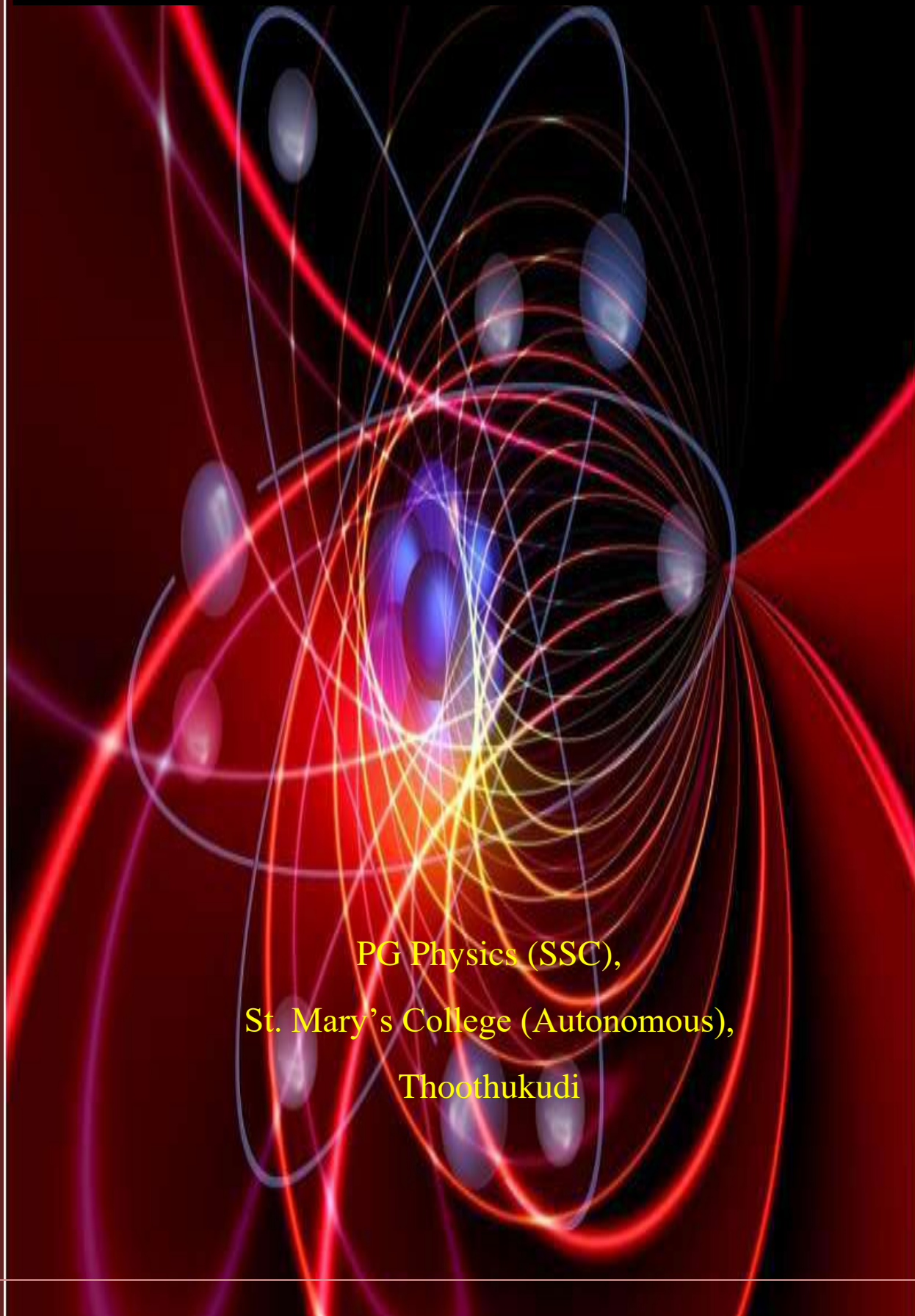


QUANTUM BULLETIN (2020 - 2021)



PG Physics (SSC),
St. Mary's College (Autonomous),
Thoothukudi

About the Department

The PG department of physics emerged in the year 2015 with five students and three staff members. The department has stepped into its fifth successful year with regular academic upgradation in the self-supporting stream. The department has excellent infrastructure with independent laboratory and well qualified faculty members engaged in active research in several areas.

The department offers various research papers such as Thin film, Crystal Growth, Nano Physics and Ultrasonics, which orient our students to promote them in research field.

Vision

- To build a foundation for excellence and encourage the development of the institution by igniting and promoting enthusiasm, interests and passion, in the study of Physics, in professional courses as a part of curriculum.

Mission

- To awaken the young minds and discover their talents both in theory and in practical Physics through dedication to teach, commitment towards students and innovative instructional methods like PPT and visual aids.
- To develop strategy in the Department for continuous improvement.

Editorial Board



Name	Designation	Qualification
Ms. P. Padmavathi	Assistant Professor	M.Sc., B.A(Hindi), M.Phil., SET
Dr. A. Nirmala Shirley	Assistant Professor	M.Sc., B.Ed., M.Phil., PhD., B.A(Hindi)
Ms. Y. Sasikala	Assistant Professor	M.Sc., (SET)
Ms L. Smila	Assistant Professor	M.Sc., M. Phil

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EVENTS & HAPPENINGS: WEBINARS

Webinar on “Enticing ways to reinvent basics of Nanoscience” was conducted on 17.07.2020 at 6 p.m. Dr. N. Ponpandian, Professor & Head, Department of Nanoscience and Technology, Bharathiar

University, Coimbatore was the resource person. More than 250 Participants from various colleges attended the webinar and got to know about the importance of Nanoscience

St. Mary's College (Autonomous)
Re-Accredited with 'A+' grade by NAAC
Thoothukudi

School of Physical Science (SSC)
As presented in brochures on
ENTICING WAYS TO REINVENT BASICS OF NANOSCIENCE
Dr. N. Ponpandian
Professor & Head
Dept. of Nanoscience & Technology
Bharathiar University, Coimbatore

With special wishes from
17th July 2020 6-7 p.m

Sr. Flora Mary, Secretary
Dr. Sr. A. S. J. Lucia Rose, Principal
Sr. F. Mary Joyce Baby, Director (SSC)

CONVENERS
Dr. P. Prabhavathi, Coordinator (SSC), Dept. of Physics
Dr. J. Antony Rajan, Coordinator (SSC), Dept. of Chemistry

Registration Link: <https://forms.gle/KPCsovWMq76NPNG98>

Silicon Field Effect Transistor

Bharathiar University

MOSFET - Metal-Oxide-Semiconductor Field Effect Transistor

Dr. N. Ponpandian is presenting

Dr. L. Arany Rajan
Dr. Ponpandian N
Vijaya Kumar
M
Muralidhar Narayanan
J
Dr. J. Antony Rajan

What is a nanometer?

Bharathiar University

1 nanometer

R
RATHE RATHE
D
Dr. J. Antony Rajan
Dr. N. Ponpandian N
M
Muralidhar Narayanan
V
Vijaya Kumar

On 31.05.2020 at 6 p.m a webinar entitled “How to use Open Educational Resources to desire” was conducted. Dr. P. Murugan, Assistant Professor in School of Management Studies, University of

Hyderabad, Hyderabad was the resource person. More than 440 Participants from various states attended the webinar and acquired the knowledge about Open Educational Resources (OER).



St. Mary's College (Autonomous)
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THOOTHUKUDI, TAMILNADU

DEPARTMENT OF PHYSICS (SSC)
Organises a National Webinar on
**HOW TO USE OPEN
EDUCATIONAL RESOURCES
TO DESIRE**



DR. P. MURUGAN
*Assistant Professor in School of
Management Studies,
University of Hyderabad,
Hyderabad.*

With special wishes from
Sr. Flora Mary , Secretary
Dr. Sr. A. S. J. Lucia Rose, Principal
Sr. F. Mary Joyce Baby, Director (SSC)

**Free
Registration!**

**E-certificate will
be provided**

SUNDAY, 31 MAY 2020, 6 P.M

Contact mail id:
lockdownphysicswebinar@gmail.com

CONVENER
Ms. P. Padmavathi
SSC Coordinator
Department of Physics (SSC)

Registration link: <https://forms.gle/mxe8M5in298q8M9C7>
Telegram link https://t.me/joinchat/Q4qgLxw3_E9fWZdMoKonDw

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STAFF ACTIVITIES

. Our department staff members effectively participated in various activities such as webinar, FDP, conference, Workshop, E - Quiz etc and enrich themselves. Mrs. P Padmavathy attended one webinar, workshop and FDP. Along with that, she has also participated in three conferences. She has completed a certificate course on Basics of Website Development and Web Hosting too.



Dr. A. Nirmala Shirley has attended 54 webinars, 11 FDPs, 2 conferences, 4 workshops, 10 E - Quizes. Mrs. L. Smila has attended 18 webinars, 3 workshops, 1 FDP, 2 E - Quizes.

RESEARCH PUBLICATION

Dr. A. Nirmala Shirley has published a paper entitled, "Fabrication of ZnS Thin films by nebulizer spray pyrolysis Technique for Solar cell Application" in the International Journal of Advanced Research in Engineering and Technology.

The image shows a certificate of publication from IAEME. At the top left is the IAEME logo. The text reads: "IAEME Publication (Publishers of High Quality Peer Reviewed Refereed Scientific, Engineering & Technology, Medicine and Management International Journals)". On the top right, contact information is provided: "www.iaeme.com", "editor@iaeme.com", and "iaemedu@gmail.com". The journal title is "INTERNATIONAL JOURNAL OF ADVANCED RESEARCH IN ENGINEERING AND TECHNOLOGY (IJARET)", which is "Scopus Indexed Journal". The paper ID is "IJARET_12_04_002" and the date is "8-April-2021". The title of the certificate is "Certificate of Publication". The text certifies that the research paper titled "FABRICATION OF ZNS THIN FILMS BY NEBULIZER SPRAY PYROLYSIS TECHNIQUE FOR SOLAR CELL APPLICATIONS" authored by "A. Nirmala Shirley, G. Jeevarani Thangam, J. Antony Rajam and J. Jebaraj Devadasan" has been reviewed and published in "International Journal of Advanced Research in Engineering and Technology (IJARET), Volume 12, Issue 4, April 2021, pp. 7-14; ISSN Print: 0976-6480 and ISSN Online: 0976-6499; Journal Impact Factor (2020): 10.9475 Calculated by GISI (www.jifactor.com)". There is a signature of the Chief Editor and a small globe icon. At the bottom, the address is: "Plot: 05, Flat- S 1, Poomalai Santosh Pearls Apartment, Plot No. 10, Vaiko Salai 6th Street, Jai Shankar Nagar, Palavakkam, Chennai - 600 041, Tamilnadu, India. E-mail: editor@iaeme.com".

Mrs. P. Padmathy has published a paper entitled, "A Discussion of Acoustical Parameters in Binary Mixtures at Different Temperatures: An Ultrasonic Study" in the International Journal of Scientific Research in Science and Technology.

RESEARCH ACHIEVEMENT

Mrs. P. Padmavathi presented a paper on the topic “**Ultrasonic studies in DMSO with different Alcohol Mixtures**” in the Online National Conference named “Recent Trends in Acoustics and Material Science 2020” (RTAMS-2020) on 28-30 November, 2020 organized by Department of Physics, School of Sciences and Research (SBSR), Sharda University, Greater Noida, Uttar Pradesh, India and received **third place in Best paper presentation**.



Ph. D AWARDED

It is our pleasure to appreciate our staff member, Dr. A. Nirmala Shirley for her successful submission of her thesis entitled “Synthesis and Characterisation of $ZnS_x SE_{1-x}$ Thin Films by Nebulizer Spray Pyrolysis for Solar Cell Application” and during this academic year (2020 - 2021), she was awarded with Ph. D degree.



FACULTY AS A RESOURCE PERSON

Dr. A. Nirmala Shirley Enacted as a resource person of a webinar, “How to ace your summer internship? ” which was organized jointly by Internshala and IQAC, St.Mary’s College (Autonomous), Thoothukudi on 15.03.2021.



MOOC COURSES

Students are encouraged to attend MOOC Courses offered by various IITs, NITs and other Universities. Our Student, P. Santhana Thiyaka Lakshmi, has successfully completed NPTEL Online Certification Course under the title “Physics of Materials”.



STUDENT ACTIVITIES

Even in this lock down period, many of students actively participated in state, national, international level webinars as well as in e - quiz. Contribution of our department students to webinar is 97 participations and that of e - quiz is 27 participations. Most importantly our students were encouraged to perform the practical work (Electronics - 24; General Physics - 12; C++ - 6; Micro processor - 6) in our laboratory as well as in virtual Laboratory (during the Lock down period).



PLACEMENT

Our student, U. Manimegalai (2019 - 2021 Batch) had cleared TNUSRB Exam and Enacted as a Police Constable in Tamilnadu Police.



PG PHYSICS